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ABSTRACT

This twenty-second in a series of twenty-nine learning modules on instructional execution is designed to give secondary and postsecondary vocational teachers help in understanding the various ways in which flannel boards, models, or real objects can be used to illustrate lessons and help in selecting the device which will be the most effective in their lessons. Introductory sections relate the competency to others in the program and list both the enabling objectives for the three learning experiences and the resources required. Materials in the learning experiences include required reading, a self-check quiz with model answers, performance checklists, and the teacher performance assessment form for use in evaluation of the terminal objective. (The modules on instructional execution are part of a larger series of 100 performance-based teacher education (PBTE) self-contained learning packages for use in preservice or inservice training of teachers in all occupational areas. Each of the field-tested modules focuses on the development of one or more specific professional competencies identified through research as important to vocational teachers. Materials are designed for use by teachers, either on an individual or group basis, working under the direction of one or more resource persons/instructors.) (BM)

ED149086

MODULE

C-22

Present Information with Models, Real Objects, and Flannel Boards

MODULE C-22 OF CATEGORY C—INSTRUCTIONAL EXECUTION
PROFESSIONAL TEACHER EDUCATION MODULE SERIES

The Center for Vocational Education
The Ohio State University

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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CE 014 322

FOREWORD

This module is one of a series of 100 performance-based teacher education (PBTE) learning packages focusing upon specific professional competencies of vocational teachers. The competencies upon which these modules are based were identified and verified through research as being important to successful vocational teaching at both the secondary and post-secondary levels of instruction. The modules are suitable for the preparation of teachers in all occupational areas.

Each module provides learning experiences that integrate theory and application; each culminates with criterion referenced assessment of the teacher's performance of the specified competency. The materials are designed for use by individual or groups of teachers in training working under the direction and with the assistance of teacher educators acting as resource persons. Resource persons should be skilled in the teacher competency being developed and should be thoroughly oriented to PBTE concepts and procedures in using these materials.

The design of the materials provides considerable flexibility for planning and conducting performance-based preservice and inservice teacher preparation programs to meet a wide variety of individual needs and interests. The materials are intended for use by universities and colleges, state departments of education, post-secondary institutions, local education agencies, and others responsible for the professional development of vocational teachers. Further information about the use of the modules in teacher education programs is contained in three related documents: **Student Guide to Using Performance-Based Teacher Education Materials, Resource Person Guide to Using Performance-Based Teacher Education Materials** and **Guide to Implementation of Performance-Based Teacher Education.**

The PBTE curriculum packages are products of a sustained research and development effort by The Center's Program for Professional Development for Vocational Education. Many individuals, institutions, and agencies participated with The Center and have made contributions to the systematic development, testing, revision, and refinement of these very significant training materials. Over 40 teacher educators provided input in development of initial versions of the modules; over 2,000 teachers and 300 resource persons in 20 universities, colleges, and post-secondary institutions used the materials and provided feedback to The Center for revision and refinement.

Special recognition for major individual roles in the direction, development, coordination of testing, revision, and refinement of these materials is extended to the following program staff: James B. Hamilton, Program Director; Robert E. Norton, Associate Program Director; Glen E. Fardig, Specialist; Lois Harrington, Program Assistant; and Karen Quinn, Program Assistant. Recognition is also extended to Kristy Ross, Technical Assistant; Joan Jones, Technical Assistant; and Jean Wisenbaugh, Artist for their contributions to the final refinement of the materials. Contributions made by former program staff toward developmental versions of these materials are also acknowledged. Calvin J. Cotrell directed the vocational teacher competency research studies upon which these modules are based and also directed the curriculum development effort from 1971–1972. Curtis R. Finch provided leadership for the program from 1972–1974.

Appreciation is also extended to all those outside The Center (consultants, field site coordinators, teacher educators, teachers, and others) who contributed so generously in various phases of the total effort. Early versions of the materials were developed by The Center in cooperation with the vocational teacher education faculties at Oregon State University and at the University of Missouri-Columbia. Preliminary testing of the materials was conducted at Oregon State University, Temple University, and University of Missouri-Columbia.

Following preliminary testing, major revision of all materials was performed by Center Staff with the assistance of numerous consultants and visiting scholars from throughout the country.

Advanced testing of the materials was carried out with assistance of the vocational teacher educators and students of Central Washington State College; Colorado State University; Ferris State College, Michigan; Florida State University; Holland College, P.E.I., Canada; Oklahoma State University; Rutgers University; State University College at Buffalo; Temple University; University of Arizona; University of Michigan-Flint; University of Minnesota-Twin Cities; University of Nebraska-Lincoln; University of Northern Colorado; University of Pittsburgh; University of Tennessee; University of Vermont; and Utah State University.

The Center is grateful to the National Institute of Education for sponsorship of this PBTE curriculum development effort from 1972 through its completion. Appreciation is extended to the Bureau of Occupational and Adult Education of the U.S. Office of Education for their sponsorship of training and advanced testing of the materials at 10 sites under provisions of EPDA Part F, Section 553. Recognition of funding support of the advanced testing effort is also extended to Ferris State College, Holland College, Temple University, and the University of Michigan-Flint.

Robert E. Taylor
Director
The Center for Vocational Education

THE CENTER FOR VOCATIONAL EDUCATION
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The Center for Vocational Education's mission is to increase the ability of diverse agencies, institutions, and organizations to solve educational problems relating to individual career planning and preparation. The Center fulfills its mission by:

- Generating knowledge through research.
- Developing educational programs and products.
- Evaluating individual program needs and outcomes.
- Installing educational programs and products.
- Operating information systems and services.
- Conducting leadership development and training programs.

AAVIM

AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS

Engineering Center
University of Georgia
Athens, Georgia 30602

The American Association for Vocational Instructional Materials (AAVIM) is an interstate organization of universities, colleges and divisions of vocational education devoted to the improvement of teaching through better information and teaching aids.

INTRODUCTION

This module focuses on three common and effective teaching techniques which can be used to present information—the use of flannel boards, models, and real objects. These devices utilize many senses which can make learning easier and result in better retention.

The flannel board, one of the oldest ways of illustrating ideas, has been used effectively at all levels of education. Properly planned and presented, the flannel board can be colorful, inexpensive, and an effective way to illustrate your lessons. For example, flannel board figures can frequently provide an inexpensive means of illustrating size/proportion relationships of objects which would be impractical or impossible to bring into the classroom. A distributive education class, for example, could study the traffic patterns and display locations in a supermarket with the use of flannel board figures.

Models are three-dimensional, scale representations of real objects. Some have cutaway sections to allow easy viewing of components which normally are not exposed. Others have moving parts which resemble those in the real object. For example, a cutaway model would be useful in illustrating the parts of a seed, whereas the operation of a cash register would be more effectively illustrated using an actual register.

This module is designed to give you an understanding of the various ways in which you can use a flannel board, model, or real object to present information and to give you skill in choosing the device which is the most effective for your objective.

ABOUT THIS MODULE

Objectives

Terminal Objective: In an actual school situation, present information with a flannel board and a model or a real object. Your performance will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 45–46 (*Learning Experience III*).

Enabling Objectives:

1. After completing the required reading, present information with a flannel board (*Learning Experience I*).
2. After completing the required reading, present information with a model or a real object (*Learning Experience II*).

Prerequisites

To complete this module, you must have competency in developing a lesson plan. If you do not already have this competency, meet with your resource person to determine what method you will use to gain this skill. One option is to complete the information and practice activities in the following module:

- *Develop a Lesson Plan*, Module B–4

Resources

A list of the outside resources which supplement those contained within the module follows. Check with your resource person (1) to determine the availability and the location of these resources, (2) to locate additional references in your occupational specialty, and (3) to get assistance in setting up activities with peers or observations of skilled teachers, if necessary. Your resource person may also be contacted if you have any difficulty with directions, or in assessing your progress at any time.

Learning Experience I

Required

A flannel board and flannel figures to use in presenting information in a lesson.

1–5 peers to role-play students to whom you are presenting a lesson, and to critique your performance. If peers are unavailable, you may present your lesson to your *resource person*.

Optional

A resource person to review the adequacy of your lesson plan.

Videotape equipment for taping, viewing, and self-evaluating your presentation.

Learning Experience II

Required

A model or real object to use in presenting information in a lesson.

1–5 peers to role-play students to whom you are presenting a lesson, and to critique your performance. If peers are unavailable, you may present your lesson to your *resource person*.

Optional

Reference: Dale, Edgar. *Audiovisual Materials in Teaching*. Third Edition. Hinsdale, IL: The Dryden Press, 1969 (out of print).

A resource person to review the adequacy of your lesson plan.

Videotape equipment for taping, viewing, and self-evaluating your presentation.

Learning Experience III

Required

An actual school situation in which you can present information with a flannel board and a model or a real object.

A resource person to assess your competency in presenting information with a flannel board and a model or a real object.

This module covers performance element numbers 121, 136 from Calvin J. Cotrell *et al.*, *Model Curricula for Vocational and Technical Education: Report No. V* (Columbus, OH: The Center for Vocational Education, The Ohio State University, 1972). The 384 elements in this document form the research base for all The Center's PBTE module development.

For information about the general organization of each module, general procedures for their use, and terminology which is common to all 100 modules, see About Using The Center's PBTE Modules on the inside back cover.

Learning Experience I

OVERVIEW

After completing the required reading, present information with a flannel board.

You will be reading the information sheet, Using a Flannel Board, pp. 7–10.

You will be selecting a student performance objective in your occupational specialty that lends itself to using a flannel board to present information.

You will be selecting, modifying, or developing a lesson plan designed to achieve that objective using a flannel board to present information.

You may wish to have your resource person review the adequacy of your plan.

You will be obtaining or making a flannel board and flannel figures to use to present information in your lesson.

You will be presenting the lesson to a group of peers, or to your resource person.

You may wish to record you presentation on videotape for self-evaluation purposes.

Your competency in presenting information with a flannel board will be evaluated by your peers, or by your resource person, using the Presentation Checklist: Flannel Board, pp. 13–23.

If you videotape your presentation, you may wish to evaluate your own performance, using the Presentation Checklist: Flannel Board, pp. 13–23.

For information explaining the use of the flannel board in presenting information, how to plan your flannel board presentation, and how to prepare a flannel board, read the following information sheet:

USING A FLANNEL BOARD

The flannel board is a dynamic teaching tool used by many educators and industrial representatives. It is a stationary or portable surface covered with a rough flannel-like cloth, usually grey or black, or dark blue in color. Flannel figures and flannel-backed cutouts such as pictures, magazine or newspaper clippings, graphs, drawings, and text material readily adhere to the surface without tape or thumb tacks. Using the flannel board, it is possible to construct and develop an idea step-by-step in a very dramatic and effective manner. When the lesson is over, the flannel figures can easily be filed for use in future lessons.

When to Use the Flannel Board

Before deciding to use the flannel board to illustrate lesson content, you need to consider certain guidelines to determine whether the flannel board is applicable to your situation.

- Do the objectives of the lesson require knowledge that could be grasped by the students through the use of the flannel boards? For example, a good plan for the relative positions of shrubbery, trees, buildings, and sidewalks could be illustrated to a class studying landscaping by using the flannel board.
- Are the objectives of the lesson more suited to the use of the flannel board than to the use of other devices? For example, will factors such as cost, safety, size, accessibility, or other circumstances make the use of some other device(s) impractical, or less effective?
- Does the flannel board lend itself well to the concepts being taught and the environment in which it will be used? Blown-up pictures of various types of welding beads could be backed by flannel and mounted on an upcoming flannel board for illustrating to a whole class the appearance of good and/or poor welding beads. In this instance, the flannel board could be used to explain and illustrate a laboratory learning experience in which real objects will be in use.
- Could the flexibility of the flannel board contribute to the involvement of students in the lesson being taught? The lesson could be more effective if students' questioning, participation, and even preparation of flannel figures can be encouraged in order to better meet lesson objectives.
- Could the use of a flannel board contribute to the achievement of lesson objectives by arousing interest at the introduction of the lesson? Could it be used to highlight key points of the lesson, summarize the lesson, or test student knowledge of the lesson? In electronics, for example, a lesson on public address systems could start with flannel figures representing the various stages (components) of an amplifier. By involving the students in the identification of the various stages and what happens as they are placed on the board, you can arouse interest and review past lessons.

The Script

You have already had experience in writing lesson plans, but special attention should be given to

lesson planning when a device such as a flannel board is used. It is recommended that a script be developed and made part of the lesson plan to describe what will be done or said as each flannel figure is placed on the board.

The script should be keyed with numbers that correspond to numbers on the flannel pieces indicating the order of placement on the board. The script may also indicate approximately how much time will be spent on each phase of the lesson. However, it should include enough flexibility to allow for student questions and interaction. It should help you to discuss the major points in the lesson with students and help students to apply that information to their own problems or needs. The script could be written on index cards for ease of handling during a lesson. Sample 1 shows an example of a partial script which might appear on an index card.

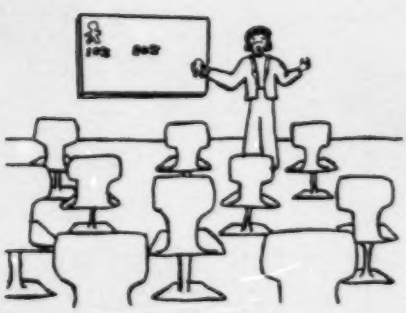
SAMPLE 1

PARTIAL EXAMPLE OF A SCRIPT

No.	Flannel Figure	Time Est.	Questions & Comments
1	Picture of radio antenna	2 min.	What am I placing on the flannel board? (Call on student.) What does the radio antenna do for a radio receiver and how does it work? (Call on student.)
2	Picture of IF transformers and local oscillator	3 min.	This picture—what does it represent? What frequencies are operating in this stage of the radio?

Rehearsal

At least until you are experienced with the flannel board technique, it is recommended that you rehearse your presentations. During the rehearsal, you can check the amount of time required and verify whether you are illustrating the key points of the lesson in a clear, forceful, and logical manner. Follow your script as much as possible, but don't let it force you into an awkward or unnatural manner of presentation. You cannot always anticipate the kind or number of questions likely to be raised, so you must be prepared to be flexible.



Make sure the flannel board is set up in such a position that all students will be able to see it and that all figures, lettering, and numbers are big enough to be easily seen from the farthest point in the room. Teachers often set the flannel board on a painting easel. This allows for flexibility of positioning in the room and in adjusting the height. Use of an easel also allows the top of the flannel board to slant back so that flannel figures hang better.

You may wish to use hooks and screw eyes with your flannel board and hang it from a wall, in front of a bulletin board, or in front of a chalkboard. To get the flannel figures to stick to the board better, try sliding them downward onto the board rather than just pressing them straight on—this locks the fibers together better. Give attention to spacing and sequencing materials to gain maximum results.

How to Prepare a Flannel Board

Writing the script, preparing the flannel figures, and even making the flannel board itself can become worthwhile learning experiences for students when they are actively involved. Committees of students could be assigned the various responsibilities leading to the finished product. The students usually feel a sense of pride in their contributions and, most importantly, may appreciate the significance of the lessons even more if they are involved in developing the visual aids.

You can either make or buy your own flannel board and/or figures. Flannel boards may be purchased from local dealers or from the following sources for approximately $25.00 at the time of this writing:

- Florey Inc., 815 Bates St., Detroit, MI 48226
- L. A. Whitney Displays, 331 Madison Avenue, New York, NY 10017
- Visual Crafts Supply Company, 640 North Willow St., Kent, OH 44240

If you want to make a flannel board, you should find it an easy, inexpensive task. A diagram of a handy, popular-sized flannel board, and a list of the materials needed and procedures for assembly are shown in Sample 2.

The cutouts, line-drawings, symbols, figures, charts, graphs, or other materials that you plan to use on the flannel board may also be designed by you and your class. An easy way to get good, large numbers, letters, and figures is to use stencils for patterns. To enlarge something, try using an opaque or transparency projector. Project the image on a wall, tape the material to the wall, and simply outline the figure that will be cut out. Some art supply stores and bookstores carry ready-made felt letters, figures, and symbols.

It is important that you use color to enhance the attractiveness of your material, so pick out materials with colors that contrast, but do not clash. To keep your flannel figures vital and in good condition, store them in a flat folder or in a shallow cardboard box to prevent soiling and bending.

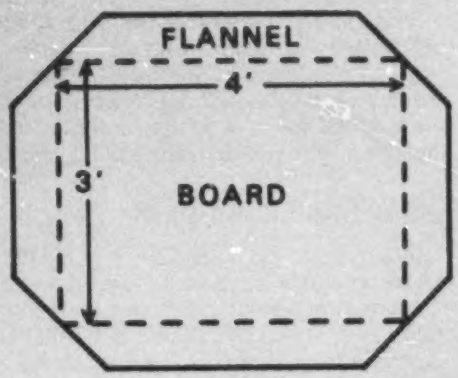
Hook and Loop Board

For devices too heavy to hang on a flannel board (such as metal parts and tools), you may find the commercial hook 'n loop board even more valuable as a visual aid than the flannel board. The hook 'n loop board is a variation of the flannel board, but instead of flannel backing, the board is covered with a nylon material with thousands of small loops on its surface.

The objects or figures to be hung on the board have a material attached to them that has thousands of hooks that cling to the loops. It is possible to display bottles, gears, books, tools, and other large objects on the board and take them off easily. A one-inch square piece of tape, properly applied, will hold 5–10 pounds depending on the shape and leverage of the object.

SAMPLE 2

INSTRUCTIONS FOR MAKING A FLANNEL BOARD



NOTE: Flannel stapled to the back or edges of the board.

Could have both sides covered with same or different color.

Frame could be built to cover stapled edges.

Material and Procedures

1. Use ¼", ⅜", or ½" plywood, hard board, or wall board as the base.
2. Cut base to desired size (3' × 4' in our sample). Most lumber yards or hardware stores will cut to your size when you buy.
3. Secure a piece of cotton flannel, flannelette, felt, suede, or other rough-napped cloth several inches larger than the board (42" × 54" in our sample). Make sure the material you secure will hold the flannel figures you plan to make by testing the cloth before you buy or cut it.
4. After stretching the cloth over the board, fold the excess to the back side and secure with staples or tacks. If you want to cover both sides of the board, you may want to cut both pieces so they just cover the edges of the board and are stapled to the edges.
5. If an easel is not available, you can hinge a piece of plywood to the back side or edges in such a way that the board will stand on a desk or table.

Select a student performance objective in your occupational specialty which could be achieved, at least partially, by using a flannel board to present information. (In a real world situation, you start with an objective and then select the most appropriate materials and/or teaching methods. In this practice situation, however, you need to select an objective that lends itself to using a flannel board to present information.)

Prepare a detailed lesson plan which includes an explanation of how the flannel board will be used to present information. Instead of developing a lesson plan, you may select a lesson plan that you have developed previously, and adapt that plan so that it includes the use of a flannel board to present information.

You may wish to have your resource person review the adequacy of the plan. He/she could use the Teacher Performance Assessment Form in Module B–4, *Develop a Lesson Plan*, as a guide.

Based on your lesson plan, obtain a flannel board and the flannel figures you will need to make your presentation. You may choose to make your own flannel board and flannel figures instead of obtaining them. The directions and specifications given on p. 10 could serve as a guide in helping you to make your own flannel board.

In a simulated classroom situation, present your lesson to a group of one to five peers. These peers will serve two functions: (1) they will role-play the students to whom you are presenting your lesson, and (2) they will evaluate your performance. If peers are not available to you, you may present your lesson to your resource person.

If you wish to self-evaluate, you may record your performance on videotape so you may view your own presentation at a later time.

Multiple copies of the Presentation Checklist: Flannel Board are provided in this learning experience. Give a copy to each peer, or to your resource person, before making your presentation in order to ensure that each knows what to look for in your lesson. However, indicate that during the lesson, all attention is to be directed toward you, and that the checklists are to be completed **after** the lesson is finished.

If you videotaped your lesson, you may wish to self-evaluate, using a copy of the Presentation Checklist: Flannel Board.

PRESENTATION CHECKLIST: FLANNEL BOARD

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

LEVEL OF PERFORMANCE

	N/A	No	Partial	Full
1. The use of the flannel board was appropriate in terms of the lesson objective to be met	☐	☐	☐	☐
2. The flannel board illustration helped clarify key points of the lesson	☐	☐	☐	☐
3. The teacher appeared natural and flexible in using the flannel board	☐	☐	☐	☐
4. The flannel board was used to introduce the lesson, highlight key points, or summarize the lesson	☐	☐	☐	☐
5. The teacher had all flannel board materials prepared and organized in advance	☐	☐	☐	☐
6. The teacher prepared a script for the flannel board presentation	☐	☐	☐	☐
7. The teacher presented ideas clearly, in a step-by-step sequence	☐	☐	☐	☐
8. The flannel board figures corresponded to the steps in the teacher's presentation	☐	☐	☐	☐
9. The flannel board and flannel figures were large enough so as to be visible to all students	☐	☐	☐	☐
10. The flannel figures were well spaced on the flannel board	☐	☐	☐	☐
11. The teacher made effective use of color	☐	☐	☐	☐
12. The flannel figures were neat and attractive	☐	☐	☐	☐
13. The flannel figures adhered well to the board	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES

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LEVEL OF PERFORMANCE

	N/A	No	Partial	Full
1. The use of the flannel board was appropriate in terms of the lesson objective to be met	☐	☐	☐	☐
2. The flannel board illustration helped clarify key points of the lesson	☐	☐	☐	☐
3. The teacher appeared natural and flexible in using the flannel board	☐	☐	☐	☐
4. The flannel board was used to introduce the lesson, highlight key points, or summarize the lesson	☐	☐	☐	☐
5. The teacher had all flannel board materials prepared and organized in advance	☐	☐	☐	☐
6. The teacher prepared a script for the flannel board presentation	☐	☐	☐	☐
7. The teacher presented ideas clearly, in a step-by-step sequence	☐	☐	☐	☐
8. The flannel board figures corresponded to the steps in the teacher's presentation	☐	☐	☐	☐
9. The flannel board and flannel figures were large enough so as to be visible to all students	☐	☐	☐	☐
10. The flannel figures were well spaced on the flannel board	☐	☐	☐	☐
11. The teacher made effective use of color	☐	☐	☐	☐
12. The flannel figures were neat and attractive	☐	☐	☐	☐
13. The flannel figures adhered well to the board	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES

PRESENTATION CHECKLIST: FLANNEL BOARD

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

LEVEL OF PERFORMANCE

	N/A	No	Partial	Full
1. The use of the flannel board was appropriate in terms of the lesson objective to be met	☐	☐	☐	☐
2. The flannel board illustration helped clarify key points of the lesson	☐	☐	☐	☐
3. The teacher appeared natural and flexible in using the flannel board	☐	☐	☐	☐
4. The flannel board was used to introduce the lesson, highlight key points, or summarize the lesson	☐	☐	☐	☐
5. The teacher had all flannel board materials prepared and organized in advance	☐	☐	☐	☐
6. The teacher prepared a script for the flannel board presentation	☐	☐	☐	☐
7. The teacher presented ideas clearly, in a step-by-step sequence	☐	☐	☐	☐
8. The flannel board figures corresponded to the steps in the teacher's presentation	☐	☐	☐	☐
9. The flannel board and flannel figures were large enough so as to be visible to all students	☐	☐	☐	☐
10. The flannel figures were well spaced on the flannel board	☐	☐	☐	☐
11. The teacher made effective use of color	☐	☐	☐	☐
12. The flannel figures were neat and attractive	☐	☐	☐	☐
13. The flannel figures adhered well to the board	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES

PRESENTATION CHECKLIST: FLANNEL BOARD

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

LEVEL OF PERFORMANCE

	N/A	No	Partial	Full
1. The use of the flannel board was appropriate in terms of the lesson objective to be met	☐	☐	☐	☐
2. The flannel board illustration helped clarify key points of the lesson	☐	☐	☐	☐
3. The teacher appeared natural and flexible in using the flannel board	☐	☐	☐	☐
4. The flannel board was used to introduce the lesson, highlight key points, or summarize the lesson	☐	☐	☐	☐
5. The teacher had all flannel board materials prepared and organized in advance	☐	☐	☐	☐
6. The teacher prepared a script for the flannel board presentation	☐	☐	☐	☐
7. The teacher presented ideas clearly, in a step-by-step sequence	☐	☐	☐	☐
8. The flannel board figures corresponded to the steps in the teacher's presentation	☐	☐	☐	☐
9. The flannel board and flannel figures were large enough so as to be visible to all students	☐	☐	☐	☐
10. The flannel figures were well spaced on the flannel board	☐	☐	☐	☐
11. The teacher made effective use of color	☐	☐	☐	☐
12. The flannel figures were neat and attractive	☐	☐	☐	☐
13. The flannel figures adhered well to the board	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES

Learning Experience II

OVERVIEW

After completing the required reading, present information with a model or real object.

You will be reading the information sheet, Using Models and Real Objects, pp. 27–28.

You may wish to read Dale, *Audiovisual Materials in Teaching*, pp. 214–235.

You will be selecting a student performance objective in your occupational specialty that lends itself to using a model or real object to present information.

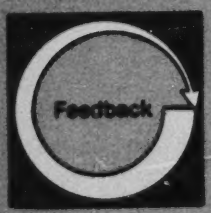
You will be selecting, modifying, or developing a lesson plan designed to achieve that objective using a model or real object to present information.

You may wish to have your resource person review the adequacy of your plan.

You will be obtaining or making a model or a real object to use to present information in your lesson.

You will be presenting the lesson to a group of peers, or to your resource person.

You may wish to record your presentation on videotape for self-evaluation purposes.



Your competency in presenting information with a model or a real object will be evaluated by your peers, or by your resource person, using the Presentation Checklist: Model or Real Object, pp. 31–42.

If you videotape your presentation, you may wish to evaluate your own performance, using the Presentation Checklist: Model or Real Object, pp. 31–42.

Activity

For information describing the use of models and real objects in presenting information; how to plan for your use of the model or real object; and how to select which device would be most appropriate for a particular lesson objective, read the following information sheet:

USING MODELS AND REAL OBJECTS

Models and real objects can be used to provide concrete and firsthand experiences in your classroom. They lend tangible, material support to abstract ideas. A model is a "recognizable imitation of the real thing with an increase or decrease in size as the chief difference."[1] A model can be built exactly to **scale** (e.g., a larger than life-sized scale model of the human brain), or can be a **simplified** version of the original (e.g., a landscaping model in which the proportions do not correspond precisely to the original). A **cutaway or cross-sectional model** allows us to see the parts or processes inside the original (e.g., a larger than life-sized model of a tooth, made to exact or approximate scale).

A **mock-up** is a special form of model; at one time the term referred to a full-sized replica of the original (e.g., an automobile). Now, it more commonly refers to a simplified version of the original, in which "a certain element of the original is highlighted or emphasized to make it more meaningful for the student,"[2] (e.g., a mock-up of an automobile ignition system in which only the basic process is revealed).

Before you decide which device to use to present information, ask yourself the following questions.

- Which device will contribute significantly toward student attainment of performance objectives?
- Which device will allow students to get involved in manipulating or using it?
- Which device will be interesting to the students, causing them to discuss it, study it, or ask questions about it?
- Which device will help students attain a deeper understanding of the lesson?
- Which device is available or can be made or secured?

How do you determine if a model or real object is an effective teaching device? The final test is how students react. If you use an aid which arouses curiosity, answers questions, gives firsthand experience with a process or principle, or leads students to a deeper knowledge of a subject, you have been successful.

How would you decide whether to use a model or a real object to present information? This depends on the particular student performance objectives you are teaching. In general, you should try to use real objects whenever possible, since the ultimate goal of instruction is to bring the student to an understanding of the real world.

However, models can be more advantageous in certain situations—for example, when you need to provide a normally invisible interior view of a real object. Take, for example, the situation in which the objective of a lesson is to help students understand the support structures of a house and how they are assembled. To see a real house in the process of being built would be ideal, but is sometimes impractical. A cutaway model of a house with non-essential parts removed is often better for the purpose of giving the students a visual understanding of house support structures.

A model could be more useful to you than the real object when certain features of an object can be emphasized with bright color, contrasting texture, or removable parts. Worn bearings, for example, are often difficult to see unless the light falls

1. Edgar Dale, *Audiovisual Methods in Teaching*, Third Edition (Hinsdale, IL: The Dryden Press, 1969), p. 215.
2. Dale, *Audiovisual Methods in Teaching*, p. 230.

on them at a particular angle. A large scale model with brightly painted surface scratches, or worn spots finished in a contrasting texture, will help students learn what to look for when they diagnose a real set of faulty bearings.

Objects and models which can be manipulated or used are better devices than those which can only be looked at. This is true because the more senses that are used in the learning process, the easier it is to learn and remember. Often students can benefit by being involved in planning and constructing a model, thus gaining a more intimate knowledge of the real object it represents.

An intricately constructed model, or an expensive real object, is not really useful unless the student understands why he/she is using it, what it represents, and how it works. When using these teaching aids to present information, you should give students time to ask questions and discuss their observations. Models and real objects should be used to encourage students to think through an idea and to practice explaining, in their own words, the process or principle which you are illustrating.

After you have used either a model or a real object to present information, reevaluate your choice by asking yourself the following questions:

- Why did I use a model or real object? Did it contribute to the lesson in a significant way?
- Did my students understand the point of the model or real object?
- Can students manipulate or use the model or real object, or is it merely something to look at, like a diagram or a transparency?
- Did students display an interest in the model or real object? Did they discuss it, study it, or ask questions about it?
- Did using the model or real object help students attain a deeper understanding of a subject?

For further information on the types and classroom uses of models, and on the use of specimens and real objects, you may wish to read Dale, *Audiovisual Materials in Teaching*, pp. 214–235.

Select a student performance objective in your occupational specialty which could be achieved, at least partially, by using a model or real object to present information. (In a real world situation, you start with an objective and then select the most appropriate materials and/or teaching methods. In this practice situation, however, you need to select an objective that lends itself to using a model or real object to present information.)

Prepare a detailed lesson plan which includes an explanation of how the model or real object will be used to present information. Instead of developing a lesson plan, you may select a lesson plan that you have developed previously, and adapt that plan so that it includes the use of a model or real object to present information.

You may wish to have your resource person review the adequacy of the plan. He/she could use the Teacher Performance Assessment Form in Module B–4, *Develop a Lesson Plan*, as a guide.

Based on your lesson plan, obtain the model or real object you will need to make your presentation. You may choose to make your own model instead of obtaining one.

In a simulated classroom situation, present your lesson to a group of one to five peers. These peers will serve two functions: (1) they will role-play the students to whom you are presenting your lesson, and (2) they will evaluate your performance. If peers are not available to you, you may present your lesson to your resource person.

If you wish to self-evaluate, you may record your performance on videotape so you may view your own presentation at a later time.

Multiple copies of the Presentation Checklist: Model or Real Object are provided in this learning experience. Give a copy to each peer, or to your resource person, before making your presentation in order to ensure that each knows what to look for in your lesson. However, indicate that during the lesson, all attention is to be directed toward you, and that the checklists are to be completed **after** the lesson is finished.

If you videotaped your lesson, you may wish to self-evaluate, using a copy of the Presentation Checklist: Model or Real Object.

PRESENTATION CHECKLIST: MODEL OR REAL OBJECT

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
In using the model or real object, the teacher:				
1. made a good choice as to whether a model or real object would be more suitable for the instructional purpose	☐	☐	☐	☐
2. allowed students to touch and handle the model or real object	☐	☐	☐	☐
The model or real object:				
3. contributed significantly toward student attainment of performance objectives	☐	☐	☐	☐
4. stimulated student interest in the lesson, causing them to discuss it, study it, or ask questions about it	☐	☐	☐	☐
5. helped students attain a deeper understanding of the lesson	☐	☐	☐	☐
If the teacher used a model to present information:				
6. students understood the design or function of the model	☐	☐	☐	☐
7. the model was a recognizable imitation of the real object	☐	☐	☐	☐
8. the decision to use a scale model, simplified model, cutaway or cross-sectional model, or mock-up was based on the lesson objective(s), student needs, and available resources	☐	☐	☐	☐
9. the model provided interior views, allowing fundamentals to be observed more easily by having non-essentials removed (optional)	☐	☐	☐	☐
10. specific features in the model were accented through the use of color, texture, or moving parts (optional)	☐	☐	☐	☐
11. students were involved in the making or constructing of the model (optional)	☐	☐	☐	☐
If the teacher used a real object to present information:				
12. the students understood how the real object works or why it was used in the lesson	☐	☐	☐	☐
13. the real object was accessible to students in terms of location	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

PRESENTATION CHECKLIST: MODEL OR REAL OBJECT

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
In using the model or real object, the teacher:				
1. made a good choice as to whether a model or real object would be more suitable for the instructional purpose	☐	☐	☐	☐
2. allowed students to touch and handle the model or real object	☐	☐	☐	☐
The model or real object:				
3. contributed significantly toward student attainment of performance objectives	☐	☐	☐	☐
4. stimulated student interest in the lesson, causing them to discuss it, study it, or ask questions about it	☐	☐	☐	☐
5. helped students attain a deeper understanding of the lesson	☐	☐	☐	☐
If the teacher used a model to present information:				
6. students understood the design or function of the model	☐	☐	☐	☐
7. the model was a recognizable imitation of the real object	☐	☐	☐	☐
8. the decision to use a scale model, simplified model, cutaway or cross-sectional model, or mock-up was based on the lesson objective(s), student needs, and available resources	☐	☐	☐	☐
9. the model provided interior views, allowing fundamentals to be observed more easily by having non-essentials removed (optional)	☐	☐	☐	☐
10. specific features in the model were accented through the use of color, texture, or moving parts (optional)	☐	☐	☐	☐
11. students were involved in the making or constructing of the model (optional)	☐	☐	☐	☐
If the teacher used a real object to present information:				
12. the students understood how the real object works or why it was used in the lesson	☐	☐	☐	☐
13. the real object was accessible to students in terms of location	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

PRESENTATION CHECKLIST: MODEL OR REAL OBJECT

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
In using the model or real object, the teacher:				
1. made a good choice as to whether a model or real object would be more suitable for the instructional purpose	☐	☐	☐	☐
2. allowed students to touch and handle the model or real object	☐	☐	☐	☐
The model or real object:				
3. contributed significantly toward student attainment of performance objectives	☐	☐	☐	☐
4. stimulated student interest in the lesson, causing them to discuss it, study it, or ask questions about it	☐	☐	☐	☐
5. helped students attain a deeper understanding of the lesson	☐	☐	☐	☐
If the teacher used a model to present information:				
6. students understood the design or function of the model	☐	☐	☐	☐
7. the model was a recognizable imitation of the real object	☐	☐	☐	☐
8. the decision to use a scale model, simplified model, cutaway or cross-sectional model, or mock-up was based on the lesson objective(s), student needs, and available resources	☐	☐	☐	☐
9. the model provided interior views, allowing fundamentals to be observed more easily by having non-essentials removed (optional)	☐	☐	☐	☐
10. specific features in the model were accented through the use of color, texture, or moving parts (optional)	☐	☐	☐	☐
11. students were involved in the making or constructing of the model (optional)	☐	☐	☐	☐
If the teacher used a real object to present information:				
12. the students understood how the real object works or why it was used in the lesson	☐	☐	☐	☐
13. the real object was accessible to students in terms of location	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

PRESENTATION CHECKLIST: MODEL OR REAL OBJECT

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
In using the model or real object, the teacher:				
1. made a good choice as to whether a model or real object would be more suitable for the instructional purpose	☐	☐	☐	☐
2. allowed students to touch and handle the model or real object	☐	☐	☐	☐
The model or real object:				
3. contributed significantly toward student attainment of performance objectives	☐	☐	☐	☐
4. stimulated student interest in the lesson, causing them to discuss it, study it, or ask questions about it	☐	☐	☐	☐
5. helped students attain a deeper understanding of the lesson	☐	☐	☐	☐
If the teacher used a model to present information:				
6. students understood the design or function of the model	☐	☐	☐	☐
7. the model was a recognizable imitation of the real object	☐	☐	☐	☐
8. the decision to use a scale model, simplified model, cutaway or cross-sectional model, or mock-up was based on the lesson objective(s), student needs, and available resources	☐	☐	☐	☐
9. the model provided interior views, allowing fundamentals to be observed more easily by having non-essentials removed (optional)	☐	☐	☐	☐
10. specific features in the model were accented through the use of color, texture, or moving parts (optional)	☐	☐	☐	☐
11. students were involved in the making or constructing of the model (optional)	☐	☐	☐	☐
If the teacher used a real object to present information:				
12. the students understood how the real object works or why it was used in the lesson	☐	☐	☐	☐
13. the real object was accessible to students in terms of location	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

PRESENTATION CHECKLIST: MODEL OR REAL OBJECT

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
In using the model or real object, the teacher:				
1. made a good choice as to whether a model or real object would be more suitable for the instructional purpose	☐	☐	☐	☐
2. allowed students to touch and handle the model or real object	☐	☐	☐	☐
The model or real object:				
3. contributed significantly toward student attainment of performance objectives	☐	☐	☐	☐
4. stimulated student interest in the lesson, causing them to discuss it, study it, or ask questions about it	☐	☐	☐	☐
5. helped students attain a deeper understanding of the lesson	☐	☐	☐	☐
If the teacher used a model to present information:				
6. students understood the design or function of the model	☐	☐	☐	☐
7. the model was a recognizable imitation of the real object	☐	☐	☐	☐
8. the decision to use a scale model, simplified model, cutaway or cross-sectional model, or mock-up was based on the lesson objective(s), student needs, and available resources	☐	☐	☐	☐
9. the model provided interior views, allowing fundamentals to be observed more easily by having non-essentials removed (optional)	☐	☐	☐	☐
10. specific features in the model were accented through the use of color, texture, or moving parts (optional)	☐	☐	☐	☐
11. students were involved in the making or constructing of the model (optional)	☐	☐	☐	☐
If the teacher used a real object to present information:				
12. the students understood how the real object works or why it was used in the lesson	☐	☐	☐	☐
13. the real object was accessible to students in terms of location	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

PRESENTATION CHECKLIST: MODEL OR REAL OBJECT

Directions: Place an X in the NO, PARTIAL, or FULL box to indicate that each of the following performance components was not accomplished, partially accomplished, or fully accomplished. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE			
	N/A	No	Partial	Full
In using the model or real object, the teacher:				
1. made a good choice as to whether a model or real object would be more suitable for the instructional purpose	☐	☐	☐	☐
2. allowed students to touch and handle the model or real object	☐	☐	☐	☐
The model or real object:				
3. contributed significantly toward student attainment of performance objectives	☐	☐	☐	☐
4. stimulated student interest in the lesson, causing them to discuss it, study it, or ask questions about it	☐	☐	☐	☐
5. helped students attain a deeper understanding of the lesson	☐	☐	☐	☐
If the teacher used a model to present information:				
6. students understood the design or function of the model	☐	☐	☐	☐
7. the model was a recognizable imitation of the real object	☐	☐	☐	☐
8. the decision to use a scale model, simplified model, cutaway or cross-sectional model, or mock-up was based on the lesson objective(s), student needs, and available resources	☐	☐	☐	☐
9. the model provided interior views, allowing fundamentals to be observed more easily by having non-essentials removed (optional)	☐	☐	☐	☐
10. specific features in the model were accented through the use of color, texture, or moving parts (optional)	☐	☐	☐	☐
11. students were involved in the making or constructing of the model (optional)	☐	☐	☐	☐
If the teacher used a real object to present information:				
12. the students understood how the real object works or why it was used in the lesson	☐	☐	☐	☐
13. the real object was accessible to students in terms of location	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive FULL, or N/A responses. If any item receives a NO, or PARTIAL response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

Learning Experience III

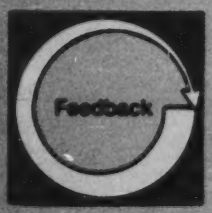
FINAL EXPERIENCE

In an actual school situation,* present information with a flannel board and a model or a real object.

As you plan your lessons, decide when a flannel board and a model or a real object could be used effectively to aid in meeting the lesson objectives. Based on those decisions, present information with a flannel board and a model or a real object. This will include—

- deciding if you wish to teach a single lesson which incorporates the use of both techniques, or if you wish to teach two lessons, one using a flannel board and one using a model or a real object
- selecting, modifying, or developing a lesson plan(s) which includes the use of these techniques
- selecting, obtaining, or preparing the necessary materials
- presenting the lesson(s) to the class

NOTE: Your resource person may want you to submit your written lesson plan(s) to him/her for evaluation before you present your lesson(s). It may be helpful for your resource person to use the TPAF from Module B–4, *Develop a Lesson Plan*, to guide his/her evaluation.



Arrange in advance to have your resource person observe your lesson presentation(s).

Your total competency will be assessed by your resource person, using the Teacher Performance Assessment Form, pp. 45–46.

Based upon the criteria specified in this assessment instrument, your resource person will determine whether you are competent in presenting information with a flannel board and model or a real object.

*For a definition of "actual school situation," see the inside back cover.

NOTES

TEACHER PERFORMANCE ASSESSMENT FORM

Present Information with Models, Real Objects, and Flannel Boards (C–22)

Directions: Indicate the level of the teacher's accomplishment by placing an X in the appropriate box under the LEVEL OF PERFORMANCE heading. If, because of special circumstances, a performance component was not applicable, or impossible to execute, place an X in the N/A box.

Name _____

Date _____

Resource Person _____

	LEVEL OF PERFORMANCE					
	N/A	None	Poor	Fair	Good	Excellent
Flannel Board						
1. The flannel board illustration helped clarify key points of the lesson	☐	☐	☐	☐	☐	☐
2. The use of the flannel board was appropriate in terms of the lesson objective to be met	☐	☐	☐	☐	☐	☐
3. The teacher appeared natural and flexible in using the flannel board	☐	☐	☐	☐	☐	☐
4. The flannel board was used to introduce the lesson, highlight key points, or summarize the lesson	☐	☐	☐	☐	☐	☐
5. The teacher had all flannel board materials prepared and organized in advance	☐	☐	☐	☐	☐	☐
6. The teacher prepared a script for the flannel board presentation	☐	☐	☐	☐	☐	☐
7. The teacher presented ideas clearly, in a step-by-step sequence	☐	☐	☐	☐	☐	☐
8. The flannel board figures corresponded to the steps in the teacher's presentation	☐	☐	☐	☐	☐	☐
9. The flannel board and flannel figures were large enough so as to be visible to all students	☐	☐	☐	☐	☐	☐
10. The flannel figures were well spaced on the flannel board	☐	☐	☐	☐	☐	☐
11. The teacher made effective use of color	☐	☐	☐	☐	☐	☐
12. The flannel figures were neat and attractive	☐	☐	☐	☐	☐	☐
13. The flannel figures adhered well to the flannel board	☐	☐	☐	☐	☐	☐

Model Or Real Object

	N/A	None	Poor	Fair	Good	Excellent
In using the model or real object, the teacher:						
14. made a good choice as to whether a model or real object would be more suitable for the instructional purpose ..	☐	☐	☐	☐	☐	☐
15. allowed students to touch and handle the model or real object	☐	☐	☐	☐	☐	☐
The model or real object:						
16. contributed significantly toward student attainment of performance objectives	☐	☐	☐	☐	☐	☐
17. stimulated student interest in the lesson, causing them to discuss it, study it, or ask questions about it	☐	☐	☐	☐	☐	☐
18. helped students attain a deeper understanding of the lesson	☐	☐	☐	☐	☐	☐
If the teacher used a model to present information:						
19. students understood the design or function of the model	☐	☐	☐	☐	☐	☐
20. the model was a recognizable imitation of the real object	☐	☐	☐	☐	☐	☐
21. the decision to use a scale model, simplified model, cutaway or cross-sectional model, or mock-up was based on the lesson objective(s), student needs, and available resources	☐	☐	☐	☐	☐	☐
22. the model provided interior views, allowing fundamentals to be observed more easily by having non-essentials removed (optional)	☐	☐	☐	☐	☐	☐
23. specific features in the model were accented through the use of color, texture, or moving parts (optional)	☐	☐	☐	☐	☐	☐
24. students were involved in the making or constructing of the model (optional)	☐	☐	☐	☐	☐	☐
If the teacher used a real object to present information:						
25. the students understood how the real object worked or why it was used in the lesson	☐	☐	☐	☐	☐	☐
26. the real object was accessible to students in terms of location	☐	☐	☐	☐	☐	☐

LEVEL OF PERFORMANCE: All items must receive N/A, GOOD, or EXCELLENT responses. If any item receives a NONE, POOR, or FAIR response, the teacher and resource person should meet to determine what additional activities the teacher needs to complete in order to reach competency in the weak area(s).

NOTES

NOTES

ABOUT USING THE CENTER'S PBTE MODULES

Organization

Each module is designed to help you gain competency in a particular skill area considered important to teaching success. A module is made up of a series of learning experiences, some providing background information, some providing practice experiences, and others combining these two functions. Completing these experiences should **enable** you to achieve the **terminal** objective in the final learning experience. The final experience in each module always requires you to demonstrate the skill in an actual school situation when you are an intern, a student teacher, or an inservice teacher.

Procedures

Modules are designed to allow you to individualize your teacher education program. You need to take only those modules covering skills which you do not already possess. Similarly, you need not complete any learning experience within a module if you already have the skill needed to complete it. Therefore, before taking any module, you should carefully review (1) the Introduction, (2) the Objectives listed on p. 4, (3) the Overviews preceding each learning experience, and (4) the Final Experience. After comparing your present needs and competencies with the information you have read in these sections, you should be ready to make one of the following decisions:

- that you do not have the competencies indicated, and should complete the entire module
- that you are competent in one or more of the enabling objectives leading to the final learning experience, and thus can omit that (those) learning experience(s)
- that you are already competent in this area, and ready to complete the final learning experience in order to "test out"
- that the module is inappropriate to your needs at this time

When you are ready to take the final learning experience **and** have access to an actual school situation, make the necessary arrangements with your resource person. If you do not complete the final experience successfully, meet with your resource person and arrange (1) to repeat the experience, or (2) complete (or review) previous sections of the module or other related activities suggested by your resource person before attempting to repeat the final experience.

Options for recycling are also available in each of the learning experiences preceding the final experience. Any time you do not meet the minimum level of performance required to meet an objective, you and your resource person may meet to select activities to help you reach competency. This could involve (1) completing parts of the module previously skipped; (2) repeating activities; (3) reading supplementary resources or completing additional activities suggested by the resource person; (4) designing your own learning experience; or (5) completing some other activity suggested by you or your resource person.

Terminology

Actual School Situation . . . refers to a situation in which you are actually working with, and responsible for, secondary or post-secondary vocational students in a real school. An intern, a student teacher, or an inservice teacher would be functioning in an actual school situation. If you do **not** have access to an actual school situation when you are taking the module, you can complete the module **up to** the final learning experience. You would then do the final learning experience later; i.e., when you have access to an actual school situation.

Alternate Activity or Feedback . . . refers to an item or feedback device which may **substitute** for required items which, due to special circumstances, you are unable to complete.

Occupational Specialty . . . refers to a specific area of preparation within a vocational service area (e.g., the service area Trade and Industrial Education includes occupational specialties such as automobile mechanics, welding, and electricity).

Optional Activity or Feedback . . . refers to an item which is not required, but which is designed to **supplement** and enrich the required items in a learning experience.

Resource Person . . . refers to the person in charge of your educational program; the professor, instructor, administrator, supervisor, or cooperating/supervising/classroom teacher who is guiding you in taking this module.

Student . . . refers to the person who is enrolled and receiving instruction in a secondary or post-secondary educational institution.

Vocational Service Area . . . refers to a major vocational field: agricultural education, business and office education, distributive education, health occupations education, home economics education, industrial arts education, technical education, or trade and industrial education.

You or the Teacher . . . refers to the person who is taking the module.

Levels of Performance for Final Assessment

N/A . . . The criterion was not met because it was **not applicable** to the situation.
None . . . **No attempt** was made to meet the criterion, although it was relevent.
Poor . . . The teacher is unable to perform this skill or has only **very limited ability** to perform it.
Fair . . . The teacher is unable to perform this skill in an acceptable manner, but has **some ability** to perform it.
Good . . . The teacher is able to perform this skill in an **effective** manner.
Excellent . . . The teacher is able to perform this skill in a **very effective** manner.

Titles of The Center's Performance-Based Teacher Education Modules

Category A: Program Planning, Development, and Evaluation

A-1 Prepare for a Community Survey
A-2 Conduct a Community Survey
A-3 Report the Findings of a Community Survey
A-4 Organize an Occupational Advisory Committee
A-5 Maintain an Occupational Advisory Committee
A-6 Develop Program Goals and Objectives
A-7 Conduct an Occupational Analysis
A-8 Develop a Course of Study
A-9 Develop Long-Range Program Plans
A-10 Conduct a Student Follow-Up Study
A-11 Evaluate Your Vocational Program

Category B: Instructional Planning

B-1 Determine Needs and Interests of Students
B-2 Develop Student Performance Objectives
B-3 Develop a Unit of Instruction
B-4 Develop a Lesson Plan
B-5 Select Student Instructional Materials
B-6 Prepare Teacher-Made Instructional Materials

Category C: Instructional Execution

C-1 Direct Field Trips
C-2 Conduct Group Discussions, Panel Discussions, and Symposiums
C-3 Employ Brainstorming, Buzz Group, and Question Box Techniques
C-4 Direct Students in Instructing Other Students
C-5 Employ Simulation Techniques
C-6 Guide Student Study
C-7 Direct Student Laboratory Experience
C-8 Direct Students in Applying Problem-Solving Techniques
C-9 Employ the Project Method
C-10 Introduce a Lesson
C-11 Summarize a Lesson
C-12 Employ Oral Questioning Techniques
C-13 Employ Reinforcement Techniques
C-14 Provide Instruction for Slower and More Capable Learners
C-15 Present an Illustrated Talk
C-16 Demonstrate a Manipulative Skill
C-17 Demonstrate a Concept or Principle
C-18 Individualize Instruction
C-19 Employ the Team Teaching Approach
C-20 Use Subject Matter Experts to Present Information
C-21 Prepare Bulletin Boards and Exhibits
C-22 Present Information with Models, Real Objects, and Flannel Boards
C-23 Present Information with Overhead and Opaque Materials
C-24 Present Information with Filmstrips and Slides
C-25 Present Information with Films
C-26 Present Information with Audio Recordings
C-27 Present Information with Televised and Videotaped Materials
C-28 Employ Programmed Instruction
C-29 Present Information with the Chalkboard and Flip Chart

Category D: Instructional Evaluation

D-1 Establish Student Performance Criteria
D-2 Assess Student Performance: Knowledge
D-3 Assess Student Performance: Attitudes
D-4 Assess Student Performance: Skills
D-5 Determine Student Grades
D-6 Evaluate Your Instructional Effectiveness

Category E: Instructional Management

E-1 Project Instructional Resource Needs
E-2 Manage Your Budgeting and Reporting Responsibilities
E-3 Arrange for Improvement of Your Vocational Facilities
E-4 Maintain a Filing System
E-5 Provide for Student Safety
E-6 Provide for the First Aid Needs of Students
E-7 Assist Students in Developing Self-Discipline
E-8 Organize the Vocational Laboratory
E-9 Manage the Vocational Laboratory

Category F: Guidance

F-1 Gather Student Data Using Formal Data-Collection Techniques
F-2 Gather Student Data Through Personal Contacts
F-3 Use Conferences to Help Meet Student Needs
F-4 Provide Information on Educational and Career Opportunities
F-5 Assist Students in Applying for Employment or Further Education

Category G: School-Community Relations

G-1 Develop a School-Community Relations Plan for Your Vocational Program
G-2 Give Presentations to Promote Your Vocational Program
G-3 Develop Brochures to Promote Your Vocational Program
G-4 Prepare Displays to Promote Your Vocational Program
G-5 Prepare News Releases and Articles Concerning Your Vocational Program
G-6 Arrange for Television and Radio Presentations Concerning Your Vocational Program
G-7 Conduct an Open House
G-8 Work with Members of the Community
G-9 Work with State and Local Educators
G-10 Obtain Feedback about Your Vocational Program

Category H: Student Vocational Organization

H-1 Develop a Personal Philosophy Concerning Student Vocational Organizations
H-2 Establish a Student Vocational Organization
H-3 Prepare Student Vocational Organization Members for Leadership Roles
H-4 Assist Student Vocational Organization Members in Developing and Financing a Yearly Program of Activities
H-5 Supervise Activities of the Student Vocational Organization
H-6 Guide Participation in Student Vocational Organization Contests

Category I: Professional Role and Development

I-1 Keep Up-to-Date Professionally
I-2 Serve Your Teaching Profession
I-3 Develop an Active Personal Philosophy of Education
I-4 Serve the School and Community
I-5 Obtain a Suitable Teaching Position
I-6 Provide Laboratory Experiences for Prospective Teachers
I-7 Plan the Student Teaching Experience
I-8 Supervise Student Teachers

Category J: Coordination of Cooperative Education

J-1 Establish Guidelines for Your Cooperative Vocational Program
J-2 Manage the Attendance, Transfers, and Terminations of Co-Op Students
J-3 Enroll Students in Your Co-Op Program
J-4 Secure Training Stations for Your Co-Op Program
J-5 Place Co-Op Students on the Job
J-6 Develop the Training Ability of On-the-Job Instructors
J-7 Coordinate On-the-Job Instruction
J-8 Evaluate Co-Op Students' On-the-Job Performance
J-9 Prepare for Students' Related Instruction
J-10 Supervise an Employer-Employee Appreciation Event

RELATED PUBLICATIONS

Student Guide to Using Performance-Based Teacher Education Materials
Resource Person Guide to Using Performance-Based Teacher Education Materials
Guide to the Implementation of Performance-Based Teacher Education

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For information regarding availability and prices of these materials contact—

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